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Summary of Public Comments on Draft Bulletin 160-98

Work on Bulletin 160-98 began in 1995. A public advisory committee with more than 30 members representing a wide range of interests was established to assist the Department in preparing the water plan update. The advisory committee met with Department staff 17 times over the period of Bulletin 160-98 preparation and, in August 1997, reviewed an administrative draft that preceded the public review draft's release at the end of January 1998. Over 4,000 copies of the draft were distributed. The draft was also made available on the World Wide Web. The review period for the public draft extended through mid-April 1998, during which time eight public meetings were held and presentations were made to interested parties. The Department received about 200 letters, form letters, postcards, and other comment submissions.

Because this update of the water plan focused on local agency water management actions, the Department received many local agency comments with corrections, updates, or other changes to the draft's text on their facilities, service areas, or programs. The Department also received many comments relating to CALFED Bay-Delta program activities. CALFED's draft PEIR/PEIS was released during the Bulletin 160-98 public review period; comments on Bulletin 160-98 often reflected commenters' positions on the CALFED document. For example, proponents of CALFED's alternative one generally commented that the Bulletin's future water demand forecasts were too high.

The following sections summarize the most frequently repeated comments. Public comments often conflicted with one another. Specific comments or edits on descriptions of local agencies' facilities and programs are not included in the summary due to space limita-

tions. Copies of comments received are available for review at the Department's office.

The Role of the State, the Department, and the Water Plan Update Series

- The Department should take the lead in planning new facilities to meet California's future needs. (Chapter 6, Chapter 10)
- The Bulletin only summarizes the actions that local agencies are taking to meet future needs. It does not acknowledge the State's responsibility for meeting California's water needs. (Chapter 6, Chapter 10)
- The State should provide financial assistance to local agencies to help them meet future water needs. Many agencies cannot afford the actions that would be required to provide reliable supplies for their service areas. (Chapter 6, Chapter 10)
- The Department should take steps to meet the future needs of water users in the area of origin. (Chapter 6, Chapter 8)
- The State should provide leadership in addressing California's serious groundwater overdraft. (Chapter 3, Chapter 4, Chapter 8, Chapter 10)
- The State should take an active role in promoting or enforcing water conservation, and should take action to reduce water waste and high water use by agriculture. (Chapter 4, Chapter 6)
- The State should require local agencies to price their water in a manner that reflects its true cost or to achieve goals such as water conservation. (Chapter 4)
- The Bulletin does not plan for the State's future it tabulates a list of possible options. A plan should



- contain a process for achieving the desired goal and should identify financing sources. (Chapter 6, Chapter 10)
- The Bulletin should prioritize the options that most urgently need to be implemented, perhaps those that would eliminate average year water shortages. (Chapter 6, Chapter 10)
- The Bulletin should plan explicitly for future flood control needs. (Chapter 3, Chapter 6, Chapter 8, Chapter 10)
- The Bulletin's scope should be expanded beyond water supply planning to include planning for nonpoint source pollution control and controlling agricultural drainage. (Chapter 6, Chapter 10)
- The Bulletin should plan for the agricultural water supply needed to maintain California's agricultural production and to grow the food that will be needed by the State's increasing population. (Chapter 4, Chapter 10)

The Bulletin in General

- The Bulletin does a good job of presenting a balanced overview of California water supplies and demands, and options for meeting future needs. (no specific chapter)
- The Bulletin has fundamental flaws in methodology and should not be used to support CALFED-related decisions. The public draft should be critiqued by an external peer review committee. (Chapter 4, Chapter 6)
- The Bulletin 160-98 switch to an applied water budget approach for presentation of information is appreciated. The applied water budget is easier to understand than the net water budgets used in previous bulletins. (Chapter 3, Chapter 4)
- The applied water budget is more confusing than the previous net water budgets. (Chapter 3, Chapter 4)
- The Bulletin should not use an applied water budget because it overstates environmental water use.
 (Chapter 4)
- The Bulletin should provide more detail on demand forecasting, descriptions of water management options, and cost data. Show all assumptions and background data. (Chapter 4, Chapter 6)
- Presentation of some subjects is difficult to follow. Simplify presentation. (no specific chapter)
- Status of ongoing programs/actions (CALFED,

- Colorado River Board 4.4 Plan negotiations, new ESA listings) should be updated. (Chapter 2, Chapter 6)
- The Bulletin should show a range of shortage outcomes to reflect uncertainties associated with new ESA listings, FERC relicensing, CVPIA supplemental water acquisition, SWRCB's Bay-Delta water rights proceedings, and CALFED. (Chapter 6, Chapter 10)

Water Supplies and Demands

- There were comments on groundwater supplies or overdraft for individual groundwater basins or hydrologic regions. There were also several comments about boundaries of specific groundwater basins or sub-basins. A general comment was that the Bulletin needs to place more emphasis on good groundwater data. (Chapter 3)
- The Bulletin's treatment of 1995 and 2020 groundwater overdraft as not available as a source of supply accurately represents dependable water supplies. Groundwater overdraft is not sustainable over the long term and should not be a long-term solution to water supply needs. (Chapter 3)
- Groundwater overdraft should not be treated as creating a shortage, but should be a source of supply. Farmers will stop overdrafting groundwater when it becomes too expensive to pump. (Chapter 3)
- The high levels of groundwater overdraft shown in the San Joaquin Valley are of concern. The Bulletin should examine means to address this overdraft through long-term basin management. (Chapter 3, Chapter 8)
- There were several questions about the source of water supply data for water recycling. It was suggested that water recycling survey results be shown in an appendix. (Chapter 3, Chapter 6)
- There were several suggestions for different terminology to distinguish among water transfers, banking, exchanges, sales, and acquisitions. (Chapter 3, Chapter 6)
- The Bulletin should recognize the reality of global warming/long-term global climate change.
 Future hydrologic conditions will differ from today's. Existing hydrologic forecasts are based on a limited period of historical record. (Chapter 3)
- The Bulletin should evaluate the relationship of local land use planning to water supply/water

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- needs. Quantify the results of enactment of SB 901 (a 1995 amendment to Section 65302 of the Government Code). (Chapter 4)
- Environmental water use should be treated on an equal basis with urban and agricultural water use.
 The only environmental demands forecasted in the Bulletin are those required by laws or agreements. The Bulletin forecasts urban and agricultural uses based on needs, not minimum legal requirements. (Chapter 4)
- North Coast wild and scenic rivers should not be counted as environmental water use. The magnitude of their flow is so great that it skews the rest of the environmental water uses. North Coast wild and scenic rivers should not be counted as environmental water use because no one is seriously planning to develop them. (Chapter 4)
- The Bulletin should emphasize that the environment once received 100 percent of the water and now receives much less. Environmental water supplies are needed for more uses than recognized in the Bulletin—for non-listed species of fish and wildlife, flushing flows through the Golden Gate, and other aquatic resources. (Chapter 4)
- The Bulletin puts environmental water use in proper perspective with other water uses—that the environment is California's largest water using sector. (Chapter 4)
- The Bulletin understates future environmental demands because it uses Bay-Delta Accord requirements which expire in 1998 and present ESA requirements. Water requirements for recently listed fish species will likely increase future environmental demands. (Chapter 4)
- The Bulletin should place more emphasis on environmental water conservation. Conservation is required of the urban and agricultural sectors, but not of the environmental sector. (Chapter 4, Chapter 6)
- CVPIA supplemental water needs shown in USBR's draft CVPIA PEIS should not be counted as future environmental water demands because they falsely inflate future shortages. CVPIA supplemental water needs should not be counted as future environmental water demands because water users will not sell such large quantities of water to USBR. (Chapter 4)
- The Bulletin correctly includes CVPIA supplemental water needs as future environmental water demands. (Chapter 4)

- The Bulletin should recognize environmental water needs for the Colorado River delta area in Mexico. (Chapter 4, Chapter 9)
- More attention should be given to environmental water needs at the south end of the San Francisco Bay. (Chapter 7)
- Urban water use forecasts are too high because they are based on normalized data, not on actual water data. (Chapter 4)
- Water pricing should be explicitly considered in future demand forecasts. The definition of demand should be revised to make demand a function of price. (Chapter 4)
- There were several comments stating that water demand is not price inelastic. (Chapter 4)
- Much more conservation is possible than is shown in the Bulletin. Price should be used to achieve or enforce conservation. (Chapter 4, Chapter 6)
- Increased market penetration of horizontal axis washing machines will result in greater conservation amounts than forecasted in the Bulletin. Urban landscaping changes will also result in greater conservation. (Chapter 4, Chapter 6)
- The assumption that water agencies statewide will implement BMPs should be clarified. Not all BMPs can be quantified. (Chapter 4)
- The Bulletin overstates potential demand reductions from implementing BMPs. Agencies are only obligated to implement measures that are cost-effective for their service areas. (Chapter 4)
- Water conservation should not be implemented unless it is cost effective. Water savings do not necessarily result in depletion reductions. (Chapter 4, Chapter 6)
- The Bulletin should provide more information on its conservation assumptions, and data to substantiate forecasted conservation. (Chapter 4, Chapter 6)
- The Bulletin should discuss CVPIA water conservation plans and the effects of CVPIA tiered pricing. (Chapter 4, Chapter 6)
- The Bulletin should discuss lack of data available for city/county implementation of AB 325 (model landscaping ordinance). (Chapter 4, Chapter 6)
- There were several comments that the Bulletin's forecasts of future irrigated acreage underestimated acreage for specific areas. (Chapter 4)
- Forecasts of irrigated acreage and crop mix in past water plan updates (e.g., Bulletin 160-83) do not seem to be coming true (were too high). The Bul-

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- letin should acknowledge uncertainties in the forecasts. (Chapter 4)
- The Bulletin should give equal treatment to forecasts of agricultural and urban water use. Urban water use is forecasted based on the needs of California's future population. Agricultural needs should be based on maintaining California agriculture's proportionate share of in-state, national, and global food and fiber production. (Chapter 4)
- The Bulletin's irrigated acreage forecast does not include the effects of proposed large-scale land use conversion from irrigated agriculture to wildlife habitat, such as that proposed in CALFED's ecosystem restoration program. (Chapter 4)
- The Bulletin provides a realistic assessment of the potential for agricultural water conservation. (Chapter 4, Chapter 6)
- The potential for agricultural water conservation is much greater than is shown in the Bulletin. The Bulletin did not consider the impacts of reducing federal crop and water subsidies on forecasted demands. (Chapter 4, Chapter 6)
- The Bulletin incorrectly characterizes shortages as the gap between forecasted supplies and demands. There is no shortage if water users are unwilling to pay the amount needed to acquire new water. It is generally not economically rational to reduce shortages to zero. (Chapter 6, Chapter 10)
- The Bulletin should shift from requirements-based planning to reliability-based planning. (Chapter 6)

Future Water Management Options

- The Bulletin places too much emphasis on structural solutions to future water needs and not enough on nonstructural solutions. (Chapter 6, Chapters 7-9)
- Pricing and marginal costs should be explicitly included in the evaluation of future water management options. Use demand and supply curves to illustrate role of cost in evaluating future supplies. (Chapter 4, Chapter 6)
- Environmental impacts from new projects must be balanced against gains in environmental water supplies. Benefits of developing additional water supplies should be weighed against benefits of protecting other natural resources. (no specific chapter)
- No new reservoirs should be constructed in California. (Chapter 6, Chapters 7-9)

- California needs additional reservoirs. (Chapter 6, Chapters 7-9)
- As a matter of policy, the Bulletin should give priority to options that use existing supplies more efficiently, or reallocate existing supplies, before considering new water development projects. (Chapter 6, Chapters 7-9)
- As a matter of policy, the Bulletin should give priority to options that create new water supplies (reservoirs). (Chapter 6, Chapters 7-9)
- The Bulletin should emphasize that implementing conjunctive use projects in some areas is constrained by the lack of surface water available for recharge. (Chapter 6)
- California's future water needs can be met through increased conservation and water marketing. A modest reallocation of agricultural water supplies would satisfy the needs of California's growing urban population. (Chapter 6, Chapter 10)
- Retirement of agricultural lands should not be considered as a future water supply option. (Chapter 6)
- Land retirement costs shown in the Bulletin are too high—economic multipliers were not used for any other water management option. (Chapter 6)
- Land retirement costs shown in the Bulletin are too low. (Chapter 6)
- More emphasis should be given to integrating water supply and flood control benefits. Flood control needs should be emphasized. (Chapter 6, Chapter 8, Chapter 10)
- Multiple benefits of water conservation and recycling should be acknowledged. Conservation and recycling should be treated as new supplies regardless of where they are implemented (e.g., in inland regions). (Chapter 4, Chapter 6)
- Multipurpose benefits of new reservoirs should be emphasized. New reservoirs are increasingly important as future options, because demand hardening due to increased water conservation efforts has removed past flexibility in responding to droughts. (Chapter 6, Chapter 10)
- The Bulletin correctly recognizes that conservation and recycling create new water only where that water would otherwise be lost to the ocean or to another unusable source. (Chapter 4, Chapter 6)
- It is unrealistic to assume further conservation beyond BMPs and EWMPs. There is no way of accurately quantifying future conservation. (Chapter 6)

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- There is no evidence suggesting that the 80 percent ET₀ target for urban landscaping could be attained statewide. The urban BMPs and AB 325 have been in effect for some time and have not shown that this level is being achieved. (Chapter 4, Chapter 6)
- Distribution uniformity values assumed for the future agricultural water conservation options may be unrealistically high with present agricultural technology. (Chapter 6)
- The Bulletin should recognize that there are no accurate numbers for estimated acreage of urban landscape—either existing landscape acreage or potential future acreage. (Chapter 6)
- The Bulletin places undue reliance on conservation as a panacea for reducing future shortages. (Chapter 4, Chapter 6)
- Much more future conservation can be achieved beyond BMPs and EWMPs. Reduction of outdoor water use for landscape is not costly and can be phased in over time. More agricultural acreage can be converted from inefficient irrigation techniques to drip irrigation. (Chapter 6)
- The Bulletin does not give water transfers/water marketing equal treatment with construction of new reservoirs. The Bulletin substantially understates the future potential for water marketing. (Chapter 6)
- Water transfers do not create new water supplies they are a reallocation of existing uses. The future market for water transfers will be much less than is shown in the Bulletin. (Chapter 6)
- There were several comments regarding treatment of potential future transfers in the water budgets—whether transfers should or should not be shown as a supply if no sellers had been identified, whether transfers should be identified as options if an environmental document had not been completed, whether transfers should be subject to a real water test. (Chapter 3, Chapter 6)
- The water budgets do not show enough water supplies from potential future transfers. (Chapter 3, Chapter 6)
- New water supplies from transfers should not be shown in the water budgets. (Chapter 3, Chapter 6)
- The Bulletin does not adequately analyze thirdparty impacts resulting from water transfers. (Chapter 6)
- The "real water" concept in water transfers is not

- valid—the Department is just trying to protect the SWP. (Chapter 6)
- The Bulletin does not take into account that competition for supplies from transfers will limit the amount of water available. Well-funded environmental restoration programs such as CVPIA's supplemental water program and the CALFED program will reduce supplies available for others. (Chapter 3, Chapter 6)
- Pending regulatory actions and additional ESA listings may further reduce the amount of water that could be available for transfer. (Chapter 6)
- Area of origin protections need to be explicitly recognized as a limitation to transfers. (Chapter 6)
- The Bulletin should recognize salinity constraints in Southern California water supplies that limit local agencies ability to implement water recycling projects. (Chapter 6, Chapter 7)
- As technology improves, there is increasing potential for desalting San Joaquin Valley agricultural drainage water as part of larger projects for urban/agricultural water transfers or exchanges. (Chapter 8)
- The Bulletin should place more emphasis on seawater desalting in the future. Additional research and development funds should be devoted to desalting. (Chapter 6)
- The State should support marine transport of freshwater (tankers or water bags). The Department should work with interested parties to develop this option. (Chapter 6)
- Forest thinning should be given serious consideration as a source of future water supply.
 (Chapter 6)

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